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Division of

ORIGINAL

POLICY RESEARCH & ANALYSIS

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PROGRAM ANNOUNCEMENT FOR EXTRAMURAL RESEARCH

DECEMBER 1981

Scientific, Technological, and International Affairs Directorate
National Science Foundation Washington, D.C. 20550

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NATIONAL SCIENCE FOUNDATION
DIRECTORATE FOR SCIENTIFIC, TECHNOLOGICAL, AND INTERNATIONAL AFFAIRS
DIVISION OF POLICY RESEARCH AND ANALYSIS

PROGRAM ANNOUNCEMENT FOR SUPPORT OF EXTRAMURAL RESEARCH[1]

I. INTRODUCTION

This program announcement describes the current extramural research interests of the National Science Foundation's Division of Policy Research and Analysis (PRA). Proposals for extramural research on science and technology policy issues of national concern are encouraged. Section II presents background information on these research topics. Section III describes the policies and procedures for submitting proposals. Section IV contains the Appendices.

The Division is organized into Groups. Each Group is responsible for research on several topics of priority interest to the Division, as described below. Letters of interest and preliminary proposals should be addressed to the appropriate Group. Letters of interest on other topics relevant to the scope and objectives described, but not specifically mentioned in this announcement or not primarily assigned to one Group, should be sent to the Division Director.

Formal proposals are subject to external peer review. An evaluation sheet that is currently used by reviewers is presented as Appendix A. The extramural research program is related to and coordinated with a program of intramural staff research and policy analysis.

II. SUMMARIES OF RESEARCH INTERESTS

This section provides summary information on specific research interests of the Division.[2]

A. Socioeconomic Effects of Science and Technology

This Group is interested in studies of the social and economic effects of science and technology. Its main objective is to improve understanding of how Federal policies modify the rate and direction of research and development (R&D) and technological innovation and to assess economic and social consequences of these modifications. The results of the studies should provide information and analysis that are potentially useful for Federal decisionmaking. The research should help to clarify: (1) relationships between science, technology, and economic performance and the quality of life, and (2) the effects of government actions on such relationships. Research areas to be addressed are indicated by the following topics:

- Measurement of the impact of private and public investment in science and technology on economic performance, including private and social returns and contributions to productivity improvement. This may be done at either the macro- or micro-level. However, research at the micro-level must seek to provide methods, data, and information that are generalizable.

- Analyses of the effects of government policy instruments, such as tax policy, government R&D funding, intellectual property rights protection, and trade policy, on the level and outcomes of scientific and technological activities.

- Examination of the role of science and technology in U.S. private sector international transactions with emphasis on the interaction between international technology transactions and the rate, direction, and productivity of technological innovation in U.S. and foreign firms.

- Assessment of problems and opportunities in employment adjustments related to changes in science and technology.

Proposals in related areas will also be considered.

B. Technology Assessment and Risk Analysis

This Group supports studies that help Federal decisionmakers understand, anticipate, and plan for the impacts of new technologies—especially those that may require new or revised public policies. Technology assessments seek to provide information that will contribute to better understanding of the social and economic implications of implementing new technologies. One of the goals of technology assessment is to discover "early warning signals" that can help assess and initiate contingency plans that concern executive branch offices, mission agencies, and other interested parties. This requires studies that describe and assess the ways in which a new technology will interact with existing societal institutions over an extended time period.

The Risk Analysis program recognizes two separate, but related, aspects of the risk analysis process. The first involves scientific research leading to estimates of the levels of risk associated with specific technologies. These activities are normally outside the scope of the Risk Analysis program. The second set of processes involves individual and societal decisions about whether such risks are acceptable and how best to manage them. It is this second set of activities that is the primary focus of the Risk Analysis program.

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[1] Supercedes Program Announcement for Extramural Research, dated December 1978.

Catalogue of Federal Domestic Assistance (CFDA) Number 47-.053.

CTFD Title: Scientific, Technological, and International Affairs.

OMB Circular A-95 is not applicable to this program.

[2] Several of these research areas may also be of interest to the NSF Division of Industrial Science and Technological Innovation (ISTI/STIA), which, for example, is concerned with the *processes* of innovation. The program announcement may be obtained by writing to: Division of Industrial Science and Technological Innovation, National Science Foundation, 1800 G Street, N.W., Washington, D.C. 20550.

Illustrative of the research areas of interest are the following topics:

- Assessments of technologies that have been developed through government-supported programs;

- Assessments of technologies, derived from new discoveries in basic sciences, which may be implemented on a major scale;

- Studies of how information about technological impacts, risks, and benefits is used in the science and technology (S&T) policymaking process;

- Studies of risk perception and the institutional context for S&T decisionmaking;

- Advancements in risk analysis and technology assessment methodologies which, for instance, can estimate varying degrees of safety.

Proposals concerned with other relevant aspects of technology assessment and risk analysis will also be considered.

C. Environment, Energy, and Resources

National concerns about adequate supplies of energy and natural resources and the maintenance of environmental quality provide the impetus for scientific, technological, and regulatory programs in many Federal agencies. The Environment, Energy, and Resources (EER) Group contributes to these efforts by supporting and conducting policy studies of environment, energy, and mineral resource issues that have significant scientific or technological components. The EER Group focuses on S&T developments that have important implications for environment, energy, and resource policy, and on policy decisions related to environment, energy, and resources that could have substantial effects on science and technology.

Specific objectives in pursuing this goal are: assessing the respective roles of the Federal Government and the private sector in R&D and innovative activities in environment, energy, and mineral resource areas; clarifying the relationships between technological innovation or technology choice and governmental regulatory activities in environment, energy, and mineral resource areas; and assessing the relevance of formal decision-analytic tools (such as models) and S&T information to the analysis of S&T-related issues concerning environment, energy, and natural resource policies. This does not include the development of S&T information or decision-analytic tools, but rather the assessment of their value in assisting decisionmakers and pointing out options for their improvement.

Areas of specific interest within the above objectives are suggested by the following topics:

- The advantages and disadvantages of the alternative roles of the Federal Government and the private sector in the process of commercializing technological innovations for the accomplishment of specific national environment, energy, and resource goals;

- The advantages and disadvantages of direct Federal policies (such as Federal funding of R&D programs) and indirect actions (such as stimulation of private sector R&D through tax revision) to encourage development of innovative technologies for improved production of scarce mineral and fuel resources or their substitutes;

- The direct and indirect effects on technological innovation and technology choice of Federal environment, energy, and resource policies and how the effects can systematically be estimated in advance;

- The methods that government decisionmakers can use to assess the impact of innovative technology on the choice of environmental, energy, and resource strategy;

- The impact on technological innovation and technology choice to be expected from the exercise of specific regulatory responsibilities in environment, energy, and resources by the different levels of government (e.g., Federal, State, regional, and local);

- The validity and usefulness of currently available S&T information and analytical tools that could be used to assess the bubble concept;

- The validity and usefulness of current S&T knowledge and analytic tools for determining effects on those exposed to environmental pollution;

- The validity and usefulness of currently available energy and economic models for predicting the levels of energy prices that will stimulate energy producers and users to invest in new energy technologies—and the technologies of choice;

- The validity and usefulness of currently available S&T information (including energy, environmental and economic) and analytical tools for assessing when pilot plants and full-scale commercialization of synthetic fuel plants are likely to occur without governmental subsidy;

- The validity and usefulness of currently available analytical tools and models for assessing the R&D implications of scarcities and/or restrictions in the supplies of imported minerals and materials.

Proposals addressing other questions that focus on an important aspect of the objectives will also be considered.

III. PROGRAM GUIDELINES AND PROCEDURES

A. Background

Types of Projects Supported

Projects may be theoretical, normative, empirical or analytical investigations. They may involve: collection of new data; analysis of existing data; feasibility studies; state-of-the-art reviews and assessments; measurement techniques; development and exploration of new hypotheses; and the application of existing theories and constructs to new areas.

Workshops, conferences or seminars are occasionally supported where the issues to be addressed are well defined and group interaction is necessary to accomplish some element of the research program. The output from such workshops or conferences should be specifically designed for some policymaking, professional or public group, and the results should be made publicly available.

Eligibility

Program participation is open to academic institutions, to units of State, regional or local governments, to nonacademic, nonprofit or for profit organizations, or to a combination of any such institutions or organizations. Awards to individuals are rare but are not precluded. Those contemplating a request for support without organizational affiliation should make this clear to the relevant Group at the earliest opportunity.

B. Proposal Development and Submission

Letters of Interest and Preliminary Proposals

As a first stage in the proposal process, proposers should submit a brief letter which summarizes: the S&T policy issue(s) of concern; the research question(s) to be addressed; the hypotheses or propositions the study intends to investigate; the research approach or study design to be used; the criteria to be used in assessing results; the intended study participants; and the procedures to be used for achieving balanced and objective analysis. In the case of empirical studies, a brief discussion of data requirements should be included. These papers will be assessed to determine whether the proposed work is consistent with program objectives, priorities, and standards.

Applicants are encouraged to consult with the PRA staff on the research concepts, activities, methods, and possibilities for cooperation with other research groups or government programs having related interests before developing a final proposal.

Preliminary documents should be marked "Preliminary" and sent to the appropriate Group or to the Director, Division of Policy Research and Analysis, National Science Foundation, 1800 G Street, N.W., Washington, D.C. 20550.

Final Proposal

Should an applicant decide to submit a formal proposal after discussion with the staff, twenty (20) copies of the formal final proposal, bearing official signatures, should be sent directly to:

Central Processing Section
National Science Foundation
1800 G Street, N.W.
Washington, D.C. 20550
Attn: Division of Policy Research and Analysis

A separate information copy of proposals should also be sent directly to the relevant Group or program officer.

Target Dates

Formal proposals may be submitted at any time during the year, but those submitted prior to January 1 will have the greatest likelihood of being funded during that fiscal year. Approximately six months should be allowed for review and decision following the receipt by NSF of a formal proposal.

Proposal Format and Content

Proposals should cover the items listed below. Proposals should be direct, concise, and informative. All items should be covered in the order shown. The project description (items 3-5) should normally not exceed 15 single-spaced pages. The space allocated to each item will depend upon the problem chosen and the principal investigator's approach. Somewhat greater length may be appropriate for multiple investigators' proposals. Attachments should be used only when extensive background material would be helpful to the reviewers.

1. *Cover Sheet*—see Appendix B for format.
2. *Abstract*—of not more than one page. Include identification of the problem and a summary of the approach, project objectives, anticipated results, and implications of the project results.
3. *Identification and Significance of the Issue(s)*—a discussion of the specific issue(s) or area(s) being addressed and its (their) importance. A discussion of the contribution the study or project will make to a particular area of S&T policy and the type and significance of the output should be included.
4. *Project Plan*—a research and analysis plan should include a discussion of the specific hypotheses or research questions, the conceptual framework or model to be used, the literature and/or data to be used in the project, the data collection and analysis plans, and continuing or follow-on efforts. Plans should also include the procedures to be used to insure objectivity and

balance in the project. Plans for evaluation should also be discussed in this section.

5. *Related Efforts*—Describe significant related studies conducted by members of the project staff or by others, and discuss any planned coordination with other work in the field.

6. *Final Report and Dissemination*—Plans for dissemination of project outputs to relevant audiences should be discussed. The proposal should agree to provide a master/original final project report plus 50 copies and 100 copies of an executive summary to PRA not more than ninety days following the end of the award period. The proposal should acknowledge that the final report will be evaluated according to the regular PRA guidelines (see Section III-E).

7. *Project Personnel and Bibliography of Directly Related Work*—Brief curricula vitae for the professional staff, summarizing education, related experience, and bibliographic information related to the proposed work.

8. *Institutional Qualifications*—Should cover the resources available at, and the relevant experience of, the institution. Resources include personnel, computer, and library facilities, and ties to both sources of data and potential users of the results.

9. *Project Management Plan*—Should include the time and cost schedule for the proposed work and the time allocations and responsibilities for the project staff members. It should also schedule progress reports on the project to NSF.

10. *Current Support and Pending Applications*—Each proposal must list all sources of support, in addition to the proposed effort, to which the senior research personnel have committed a portion of their time for the period of time covered by the proposal. The information should account for 100 percent of the work time of the senior investigators, and include titles, dates, and grant numbers of current grants or contracts, source of funds, annual budget levels, and the person-months committed in each case. The proposal must also list research which is being considered by or will be submitted to other possible sponsors, including NSF programs. Concurrent submission will not jeopardize the likelihood of an award.

11. *Budget*—The proposal budget should be prepared on the format presented in Appendix C. Where the total cost of the proposed effort is expected to exceed the budget requested from NSF, proposers must indicate the sources from which additional funds are committed and the amounts of those funds. Unusual items should be fully explained or justified as budget notes.

    Listed costs of the various items should be known costs insofar as possible; estimates should be given only when it is impossible to ascertain actual costs. Nonspecific items grouped as "miscellaneous" or "contingency funds" should not be included. The budget should not include items for expenses incurred before the date of the award, such as staff time required to prepare the proposal or to make initial preparations for a conference.

    Budgets should specifically list, as separately numbered items, any permanent equipment that will cost $1,000 or more. Estimated air fares should not normally exceed round-trip jet economy class.

    Subcontracts should be listed under "All Other Direct Costs" and described on a separate budget form. The subcontract budget should be approved and signed by the proposed subcontractor, which should indicate the latter's agreement to perform the work described in the proposal.

    The proposing institution is entitled to indirect costs at the rate approved for that institution, which can be obtained from its business office, or from the NSF Division of Grants and Contracts, Cost Analysis Section. Budgets for unsolicited research proposals should contain a statement that the institution will share costs in accordance with NSF policies. Fees are not allowed. For further information on cost-sharing, see NSF *Grant Policy Manual* (NSF 77-47, revised), Section 640, and Important Notice No. 81, February 1980.

Privileged Information

Since the proposal is considered an integral part of the award instrument, proposals resulting in awards may be made available to the public. However, trade secrets and business information such as salaries of key personnel will be treated in confidence if this information is prepared in a separate statement rather than in the text of the proposal or in the budget itself. Two copies of these separate sheets or salary schedules should be attached to the original proposal only and should contain a legend similar to the following: "It is requested that the following (specify business information, salary schedule or trade secret) not be released to persons outside the Government." These separate sheets must be signed by the official who endorses the proposal. Without assuming any liability for inadvertent disclosure, NSF will seek to limit dissemination of such information to its employees and, where necessary for evaluation of the proposal, to outside reviewers. In any case, NSF will not be limited in using similar information obtained without restriction from another source.

A proposal that does not result in an award may be retained by the Foundation. Such a proposal will be released only (1) with the consent of the proposer, or (2) to the extent required by law. A proposal may be withdrawn at any time prior to final action by the Foundation.

First-Time Applicants

In the event that the submitting organization has not recently been the recipient of an NSF award, it is recommended that appropriate administrative officials be familiar with the NSF policies and procedures contained in the NSF *Grant Policy Manual* (NSF 77-47, revised), which are applicable to most NSF awards. The U.S. Government Printing Office (GPO) provides subscription service for the *Manual* to assure that users will have the latest, up-to-date information. The subscription price is $9.00 per manual for domestic customers and $11.25 for foreign. Subscribers will automatically receive subsequent updating supplements without additional charge. Copies of the *Manual* have been distributed to all NSF grantees. Other organizations or individuals seeking subscriptions may order them directly from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402

If the submitting organization has not already done so, it should be prepared to furnish the following to the NSF Division of Grants and Contracts on request:

- Basic information regarding organization and management, as outlined in Section GPM 340, *Prospective Grantee Organization and Management Data*, of the *Manual*, with particular reference to the most recent certified financial management statement required of nonacademic organizations.

- An assurance of compliance with the NSF regulation under Title VI of the Civil Rights Act of 1964, as outlined in Section GPM 700 of the *Manual*.

- Identification of the cognizant Federal negotiating agency which has approved the organization's indirect cost base and rate(s) and the date of the most recent negotiation. If the submitting organization does not have a federally approved indirect cost base and rate(s), the business officer should be prepared to submit an indirect cost proposal, as outlined in Section GPM 201d of the Manual, when requested to do so. Contents and financial data included in indirect cost proposals vary according to the nature of the proposing organization. Appropriate guidelines for your organization may be obtained by writing the Cost Analysis Section, Division of Grants and Contracts, National Science Foundation, 1800 G Street, N.W., Room 206, Washington, D.C. 20550.

Small Business Applicants

Profit organizations should complete the following declaration regarding small business on the cover sheet:

> "This organization [ ] is, [ ] is not, a small business concern."

A small business concern for the purpose of government awards is a concern, including its affiliates, which is independently owned and operated, is not dominant in the field of operation in which it is contracting, and, for research and study proposals, has fewer than 500 employees. See Code of Federal Regulations, Title 13, part 121, as amended, which contains detailed definitions and related procedures.

C. Award Information

There is no NSF commitment to make any specific number of awards, most of which are expected to be grants. Proposals submitted in response to this program announcement are considered unsolicited. Government-financed work should not begin before the effective date of the award document signed by the Grants Officer. Each award will contain appropriate general and specific provisions according to standard NSF and government practice. Awards may also contain other special provisions as necessary. These may replace or modify certain general provisions.

D. Project Monitoring and Administration

The Division of Grants and Contracts of NSF monitors management practices and fiscal matters concerning awards. Substantive and technical monitoring will be the responsibility of the PRA staff. PRA awards are not included in the Organizational Prior Approval System established at certain institutions pursuant to agreement between NSF and the American Association of Universities (AAU). Procedures and policies for administration of NSF grants are contained within the NSF *Grant Policy Manual* (NSF 77-47, revised).

Changes in Project Operation. Foundation approval must be obtained for changes in project operation in accordance with the award instrument and attachments thereto for major projects, including those:

1. Affecting the overall intent or scope of the approved project;
2. Involving a change in principal investigator;
3. Involving a change in equipment valued at $1,000 or more;
4. Involving a time extension for completion of grant activities.

Request for such changes should be addressed to the program manager by the principal investigator and must be countersigned by the authorized organizational representative.

Within the constraints cited above, changes in the schedule of expenditures within the total time period of the grant do not require Foundation approval.

Project Time Extensions. It is expected that projects will be completed within the time period specified in the award instrument. Therefore requests for no-cost time extensions should be submitted only under the most unusual circumstances.

Requests for no-cost extensions must be received at least 45 days prior to the expiration date of the grant and must be signed by both the principal investigator and the authorized organizational representative. The letter must fully justify the need for the extension, and it must include a summary of progress to date, an estimate of the unobligated funds remaining, and a description of the plan for their use. This plan must coincide with the original or amended objectives of the project. The fact that funds remain at the expiration of an award is not justification for an extension.

Data Collection. Data collection activities performed under an NSF grant are the responsibility of the grantee and NSF support of the project does not constitute NSF approval of the survey design, questionnaire content or data collection procedures. The grantee shall not represent to respondents that such data are being collected for or in association with the National Science Foundation or the U.S. Government without specific written approval of such data collection plan or device by the Foundation. However, this requirement is not intended to preclude mention of NSF support of the project in response to an inquiry or acknowledgement of such support in any publication of these data.

E. Evaluation of Project Output

All final reports resulting from extramural policy studies and research awards will receive some form of evaluation concerning the project methods, findings, and implications. These evaluations may be accomplished by a variety of means, both extramural and intramural, such as the following: mail peer review of reports, staff reviews, panel reviews, commissioned discussion papers, and colloquia or conferences. Choice of the specific means of review will be based on the ability to provide a timely and meaningful evaluation, reasonable economy in the use of resources, and relevance to the interests and perspectives of intended users. Evaluations of project output where public policy alternatives are formulated, assessed or recommended may be made publicly available with the final report through the National Technical Information Service (NTIS).

Formative evaluations are also used during the course of extramural projects, including staff evaluations of specific aspects of the project and reviews of interim or draft final reports by potential users and others. Such evaluations seek to provide suggestions concerning the development of the project and to enhance the quality and usefulness of the final report. Funds for such formative evaluation during the course of the project as input to its conduct may be included in the original proposal or provided later, depending on the evaluation format to be used.

F. Publications and Copyright Agreements

Publication

All reports must carry an acknowledgement statement on the cover page such as the following: "This material is based upon work supported by the National Science Foundation under grant/contract #________. Any opinions, findings, conclusions or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the views of the National Science Foundation."

Commercial Publication

Commercial publication or distribution of technical reports and other materials originating from a PRA-supported project requires prior approval of NSF. As part of this procedure, NSF will review dissemination plans, selection of a publisher, and the proposed publishing agreement. These plans should be discussed several months prior to publisher selection dates.

Copyrights

Unless otherwise prohibited by the award instrument, the grantee is free to copyright the reports, data (excluding computer programs), books, publications, films or other copyrightable materials developed in the course of or under an NSF grant. However, the U.S. Government retains a royalty-free, irrevocable, worldwide, nonexclusive license in these materials to reproduce, perform, translate, and otherwise use them, or to authorize others to use them for government purposes, and to sell them through the National Technical Information Service (NTIS). In some cases, NSF may permit the grantee to allow an exclusive license to a publisher for a limited period of time in order to obtain proper distribution.

BEST DOCUMENT AVAILABLE

APPENDIX A

DIVISION OF
POLICY RESEARCH AND ANALYSIS
EVALUATION SHEET

INSTITUTION	PRINCIPAL INVESTIGATOR	PROPOSAL NO.

PROPOSAL TITLE

PLEASE RETURN TO: ______________________ DIV. OF POLICY RESEARCH & ANALYSIS NATIONAL SCIENCE FOUNDATION WASHINGTON, D.C. 20550 **BY** ______________________ (DATE)

	(Check where applicable)					Reasons for your rating are an important input to our evaluation. Please describe and discuss.
	Exc.	V.G.	Good	Fair	Poor	
1. Relevance of Proposed Research for S&T Public Policy Issues						
2. Research Approach: a) Research Design & Methods b) Adequacy of Data c) Data Analysis Plan d) Objectivity and Balance of Approach						
3. Project Management Plan						
4. Professional Staff a) General Competence b) Relevant Experience						
5. Overall						

Please provide additional comments, either to amplify remarks above, or on any other criterion relevant to your evaluation of this proposal: e.g., capabilities of the institution, such as library facilities or special user ties; ability of the project staff to carry out the project in an objective and balanced manner (including consideration of other sources of support); cost effectiveness of the study. (Use extra sheets as necessary.)

Verbatim but anonymous copies of reviews, ratings and associated correspondence will be sent only to the principal investigator/project director on request. Subject to this NSF policy and applicable laws, including the Freedom of Information Act, 5 USC 552, reviewers' comments will be given maximum protection from disclosure.

REVIEWER'S NAME (TYPED OR PRINTED)	REVIEWER'S SIGNATURE	DATE

NSF FORM 1053 (7-79)

APPENDIX B

PROPOSAL TO THE NATIONAL SCIENCE FOUNDATION
Cover Page

FOR CONSIDERATION BY NSF ORGANIZATIONAL UNIT (please specify):

PROGRAM ANNOUNCEMENT/SOLICITATION NO.:

CLOSING DATE (IF ANY):

NAME OF SUBMITTING ORGANIZATION TO WHOM AWARD SHOULD BE MADE (INCLUDE BRANCH/CAMPUS/OTHER COMPONENTS)

ADDRESS OR ORGANIZATION (INCLUDE ZIP CODE)

TITLE OF PROPOSED PROJECT

REQUESTED AMOUNT

PROPOSED DURATION

DESIRED STARTING DATE

PI/PD NAME AND SOCIAL SECURITY NO. (SSN)*

PI/PD PHONE NO.

PI/PD DEPARTMENT

PI/PD ORGANIZATION

ADDITIONAL PI/PD AND SSN*

ADDITIONAL PI/PD AND SSN*

ADDITIONAL PI/PD AND SSN*

ADDITIONAL PI/PD AND SSN*

FOR RENEWAL OR CONTINUING AWARD REQUEST, LIST PREVIOUS AWARD NO.:

REMARKS: *Submission of social security numbers is voluntary and will not affect the organization's eligibility for an award. However, they are an integral part of the NSF information system and assist in processing the proposal.

PRINCIPAL INVESTIGATOR/ PROJECT DIRECTOR	AUTHORIZED ORGANIZATIONAL REP.	OTHER ENDORSEMENT
NAME	NAME	NAME
SIGNATURE	SIGNATURE	SIGNATURE
TITLE	TITLE	TITLE
DATE	DATE	DATE

BEST DOCUMENT AVAILABLE

BEST DOCUMENT AVAILABLE

(SEE INSTRUCTIONS ON REVERSE BEFORE COMPLETING)

APPENDIX C
SUMMARY PROPOSAL BUDGET

ORGANIZATION	FOR NSF USE ONLY		
	PROPOSAL NO.	DURATION (MONTHS)	
		Proposed	Granted
PRINCIPAL INVESTIGATOR/PROJECT DIRECTOR	AWARD NO.		

A. SENIOR PERSONNEL: PI/PD, Co-PI's, Faculty and Other Senior Associates (List each separately with title; A.6. show number in brackets)	NSF FUNDED PERSON-MOS.			FUNDS REQUESTED BY PROPOSER	FUNDS GRANTED BY NSF (IF DIFFERENT)
	CAL.	ACAD	SUMR		
1.				$	$
2.					
3.					
4.					
5. ( ) OTHERS (LIST INDIVIDUALLY ON BUDGET EXPLANATION PAGE)					
6. ( ) TOTAL SENIOR PERSONNEL (1-5)					
B. OTHER PERSONNEL (SHOW NUMBERS IN BRACKETS)					
1. ( ) POST DOCTORAL ASSOCIATES					
2. ( ) OTHER PROFESSIONALS (TECHNICIAN, PROGRAMMER, ETC.)					
3. ( ) GRADUATE STUDENTS					
4. ( ) UNDERGRADUATE STUDENTS					
5. ( ) SECRETARIAL-CLERICAL					
6. ( ) OTHER					
TOTAL SALARIES AND WAGES (A+B)					
C. FRINGE BENEFITS (IF CHARGED AS DIRECT COSTS)					
TOTAL SALARIES, WAGES AND FRINGE BENEFITS (A+B+C)					
D. PERMANENT EQUIPMENT (LIST ITEM AND DOLLAR AMOUNT FOR EACH ITEM EXCEEDING $1,000; ITEMS OVER $10,000 REQUIRE CERTIFICATION)					
TOTAL PERMANENT EQUIPMENT					
E. TRAVEL 1. DOMESTIC (INCL. CANADA AND U.S. POSSESSIONS)					
2. FOREIGN					
F. PARTICIPANT SUPPORT COSTS 1. STIPENDS $ ____________ 2. TRAVEL ____________ 3. SUBSISTENCE ____________ 4. OTHER ____________					
TOTAL PARTICIPANT COSTS					
G. OTHER DIRECT COSTS					
1. MATERIALS AND SUPPLIES					
2. PUBLICATION COSTS/PAGE CHARGES					
3. CONSULTANT SERVICES					
4. COMPUTER (ADPE) SERVICES					
5. SUBCONTRACTS					
6. OTHER					
TOTAL OTHER DIRECT COSTS					
H. TOTAL DIRECT COSTS (A THROUGH G)					
I. INDIRECT COSTS (SPECIFY)					
TOTAL INDIRECT COSTS					
J. TOTAL DIRECT AND INDIRECT COSTS (H + I)					
K. RESIDUAL FUNDS (IF FOR FURTHER SUPPORT OF CURRENT PROJECTS GPM 252 AND 253)					
L. AMOUNT OF THIS REQUEST (J) OR (J MINUS K)				$	$

PI/PD TYPED NAME & SIGNATURE*	DATE	FOR NSF USE ONLY		
		INDIRECT COST RATE VERIFICATION		
INST. REP. TYPED NAME & SIGNATURE*	DATE	Date Checked	Date of Rate Sheet	Initials - DGC Program

NSF Form 1030 (10-80) *Supersedes All Previous Editions*

*SIGNATURES REQUIRED ONLY FOR REVISED BUDGET (GPM 233)

INSTRUCTIONS FOR USE OF SUMMARY PROPOSAL BUDGET (NSF FORM 1030) (10-80)

1. General

a. Each grant proposal, including requests for supplemental or incremental funding, must contain a Summary Proposal Budget in this format unless a pertinent program guideline specifically provides otherwise.

b. Copies of NSF Form 1030 and instructions should be reproduced locally as NSF will not supply the form.

c. A separate form should be completed for each year of support requested. An additional form showing the cumulative budget for the full term requested should be completed for proposals requesting more than one year's support. Identify each year's request (e.g., "First year ________," or "Cumulative Budget," etc.) in the margin at the top right of the form.

d. Completion of this summary does not eliminate the need to fully document and justify the amounts requested in each category. Such documentation should be provided on additional page(s) immediately following the budget in the proposal and should be identified by line item. The documentation page(s) should be titled "Budget Explanation Page."

e. Revised budgets must be signed and dated by the authorized organizational representative and principal investigator and submitted in at least the original and two copies.

2. Budget Line Items

A full discussion of the budget and the allowability of selected items of cost is contained in *NSF Grants for Scientific Research* (NSF 78-41), *NSF Grant Policy Manual—GPM* (NSF 77-47), and other NSF program brochures and guidelines. Following is a brief outline of budget documentation requirements by line item. *(NOTE: All documentation or justification required on the line items below should be provided on the Budget Explanation Page.)*

A., B., and C. ***Salaries, Wages, and Fringe Benefits*** (GPM 511). On the Budget Explanation Page, list individually all senior personnel who were grouped under A5, the requested person-months to be funded, and rates of pay.

D. ***Permanent Equipment*** (GPM 512 and 204.2). While items exceeding $500 and 2 years' useful life are defined as permanent equipment, it is only necessary to list item and dollar amount for each item exceeding $1,000; items over $10,000 require certification. Fully justify.

E. ***Travel*** (GPM 514). Address the type and extent of travel (including consultant travel) and its relation to the project. Itemize by destination and cost and justify travel outside the United States and its possessions, Puerto Rico, and Canada. Include dates of foreign visits or meetings. Fare allowances are limited to round-trip, jet-economy rates.

F. ***Participant Support Costs*** (GPM 518). Normally participant support may only be requested under specific science education programs or for grants supporting conferences or symposia. Consult *Grants for Scientific Research* or specific program guidelines.

G. ***Other Direct Costs.***

1. *Materials and Supplies* (GPM 513). Indicate types required and estimate costs.
2. *Publication Costs/Page Charges* (GPM 517). Estimate cost of preparing and publishing project results.
3. *Consultant Services* (GPM 516). Indicate name, daily compensation (limited to $193/day), and estimated days of service, and justify.
4. *Computer Services* (GPM 515). Include justification based on established computer service rates at the proposing institution. Include computer equipment leasing. Purchase of equipment is included under D.
5. *Subcontracts* (GPM 623). Must be approved in advance. Include a completed budget and justify details.
6. *Other.* Itemize and justify.

I. ***Indirect Costs*** (GPM 530). Specify current rate(s) and base(s). Use current rate(s) negotiated with the cognizant Federal negotiating agency. See *GPM* for special policy regarding grants to individuals, travel grants, equipment grants, doctoral dissertation grants, and grants involving participant support costs.

K. ***Residual Funds*** (GPM 253). For incremental funding requests on continuing grants, enter the amount estimated to be in *excess* of 10% at the planned amendment effective date. If less than 10%, indicate: "none." Residual funds should *not* be reflected in budget categories A-I. A justification for carryover of funds in excess of 10% is required. For standard grants (GPM 252), the total estimated residual amount should be shown.

L. Item L will be the same as Item J unless the Foundation disapproves the carryover of funds. If disapproved, Item L will equal J minus K.

END

12-1-82